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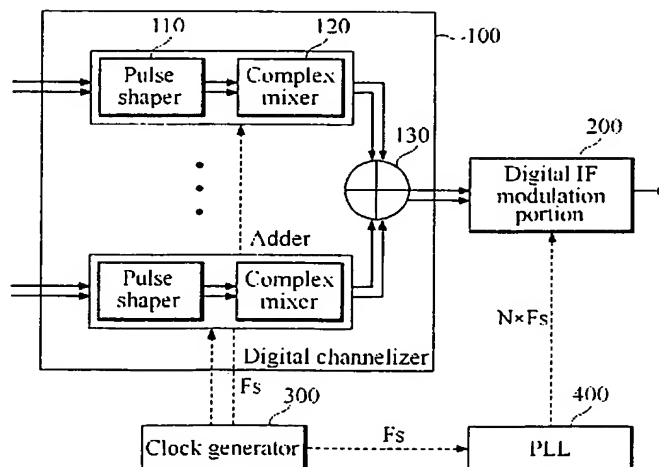
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(54) Title: APPARATUS AND METHOD FOR DIGITALLY IMPLEMENTING A WIDEBAND MULTICARRIER



(57) Abstract: The present invention relates to an apparatus and a method for implementing a wideband multicarrier by using complex digital modulation. With a conventional analog quadrature modulation, which has been used to modulate a complex digital signal into an intermediate frequency (IF) signal or a radio frequency signal, it is difficult to obtain a precise local oscillator signal. Analog circuits, as many as the number of desired carrier signals in a multicarrier, are required. However, the invention implements a wideband multicarrier by newly employing a digital channelizer and a digital IF modulation portion. Since the former can efficiently generate a plurality of carrier signals having different center frequencies and the latter can up-convert the generated carrier signals into a desired multicarrier, the invention can obtain a more reliable wideband multicarrier and implement a wideband multicarrier in a cost-effective manner.